DHSS Review of Air Sample Data from the Bridgeton Landfill Area, May 1, 2013

The Department of Health and Senior Services (DHSS) has reviewed air sample data collected for the Department of Natural Resources (DNR) near Bridgeton Landfill on May 1, 2013. Samples were collected at two locations upwind of the landfill and two locations downwind of the landfill for laboratory determination of concentrations of volatile organic compounds (VOCs), reduced sulfur compounds, and aldehydes. DHSS has reviewed this data for evaluation of potential public health concerns of short-term health effects.

VOCs

Concentrations of VOCs were well below levels of public health concern. Downwind of the landfill, 20 VOCs were detected in ambient air in concentrations that generally exceeded concentrations detected upwind of the landfill. However, these concentrations, which ranged from 0.09 parts per billion (ppb) to 25.8 ppb, did not exceed health-based guidelines for acute exposure.

Aldehydes

Concentrations of aldehydes were well below levels of public health concern, except formaldehyde. A formaldehyde concentration of 11.23 ppb in one of the upwind samples collected south of the landfill exceeded a guideline for acute exposure. The health effects of exposure to this concentration of formaldehyde may include eye, nose, and throat irritation and congestion, especially in sensitive individuals. In ambient air downwind of the landfill, concentrations of aldehydes ranged from 0.13 ppb to 12.67 ppb and did not exceed guidelines for acute exposure. Current and previous detection of formaldehyde upwind of the landfill suggests there may be sources of formaldehyde in the area other than the landfill.

Reduced Sulfur Compounds

Reduced sulfur compounds were not detected in any of the samples.